



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/403,431	02/23/2000	MOTOSHI TAMURA	9683/54	7267

757 7590 05/25/2005

BRINKS HOFER GILSON & LIONE
P.O. BOX 10395
CHICAGO, IL 60610

EXAMINER

LE, DANH C

ART UNIT	PAPER NUMBER
----------	--------------

2683

DATE MAILED: 05/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/403,431

Applicant(s)

TAMURA ET AL.

Examiner

DANH C LE

Art Unit

2683

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 42-53 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 42-53 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) ✓
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 12/17/04. ✓
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 47-49 are rejected under 35 U.S.C. 102(b) as being anticipated by

Foster (US 5,918,181).

As to claim 47, Foster teaches a mobile station characterized in that it establishes a plurality of branches (figure 1, 155n) directly between one or more base stations (100n) of a network and the mobile station upon receiving a message from the network when no access link is established between the network and the mobile station, the message including a request for establishing the branches, thereby commencing communication using the plurality of branches (col.9, lines 32-col.10, line 3).

As to claim 48, Foster teaches a mobile station according to claim 47, wherein if the request includes an instruction to establish the branches between the mobile station and a single base station, the mobile station establishes the requested branches between the mobile station and the single base station, thereby commencing communication using the plurality of branches (col.9, lines 32-col.10, line 3).

As to claim 49, Foster teaches a mobile station according to claim 47, wherein if the request includes a request to establish the branches between the mobile station and a plurality of base stations, the mobile station establishes the requested branches between the mobile station and the base stations, thereby commencing communication using the plurality of branches (col.9, lines 32-col.10, line 3).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 42-46, 50-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tetsuyoshi in view of Foster (US 5,918,181).

As to claim 42, Tetsuyoshi teaches a method for controlling access links between a mobile station and a network (figure 1), characterized in that a plurality of branches are established between the network and the mobile station when the mobile station is located at a position where it can communicate using diversity handover, the plurality of branches including a main branch and at least one auxiliary branch for additional use in order that the mobile station may communicate using diversity handover, thereby enabling the mobile station to commence communication using the plurality of branches (paragraph 0010-0013).

Tetsuyoshi fails to teach the network and mobile is established upon a call attempt to or from the mobile station. Foster teaches the network and mobile is

Art Unit: 2683

established upon a call attempt to or from the mobile station (col.9, lines 32-col.10, line 3). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Foster into the system of Tetsuyoshi in order to improve a diversity handoff between mobile station and base stations by efficient location tracking.

As to claim 43, Tetsuyoshi teaches a method according to claim 42, wherein the branches are formed between the network and the mobile station via a single base station, thereby enabling the mobile station to commence communication using the plurality of branches (paragraph 0010-0013).

As to claim 44, Tetsuyoshi teaches a method according to claim 42, wherein the branches are formed between the network and the mobile station via a plurality of base stations, thereby enabling the mobile station to commence communication using the plurality of branches (paragraph 0010-0013).

As to claim 45, Tetsuyoshi teaches a method according to claim 42, wherein the mobile station measures the levels of reception from surrounding base stations, selects candidate zones for the diversity handover on the basis of the measurement, and notifies the network about the candidate zones, and the network selects the branches in light of the notification from the mobile station (paragraph 0015).

As to claim 46, Tetsuyoshi teaches a method according to claim 42, Tetsuyoshi fails to teach the network transmits a messages including a request to establish the branches, to the mobile station and commences communication with the mobile station using the plurality of branches. Foster teaches the network transmits a messages

Art Unit: 2683

including a request to establish the branches, to the mobile station and commences communication with the mobile station using the plurality of branches (col.6, lines 6-25). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Foster into the system of Tetsuyoshi in order to improve a diversity handoff between mobile station and base stations.

As to claim 50, Tetsuyoshi teaches a base station controller characterized in that it establishes (figure 1), when a mobile station is at a location where it can communicate using diversity handover a plurality of branches between a network and a the mobile station the plurality of branches including main branch and at least one auxiliary branch for additional use in order that the mobile station may communicate using diversity handover (paragraph 0010-0013).

Tetsuyoshi fails to teach the network and mobile is established upon a call attempt to or from the mobile station. Foster teaches the network and mobile is established upon a call attempt to or from the mobile station (col.9, lines 32-col.10, line 3). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Foster into the system of Tetsuyoshi in order to improve a diversity handoff between mobile station and base stations by efficient location tracking.

As to claim 51, Tetsuyoshi teaches a base station controller characterized in that when a mobile station is at a location where it can communicate using diversity handover, the base station controller transmits a message to both of a base station and a mobile station, wherein the mobile station and the base station communicate with

Art Unit: 2683

each other using a plurality of branches, the message including a request for establishing a plurality of branches including a main branch and at least one auxiliary branch for additional use in order that the mobile station may communicate by means of infra-cell diversity handover (paragraph 0010-0013).

Tetsuyoshi fails to teach the network and mobile is established upon a call attempt to or from the mobile station. Foster teaches the network and mobile is established upon a call attempt to or from the mobile station (col.9, lines 32-col.10, line 3). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Foster into the system of Tetsuyoshi in order to improve a diversity handoff between mobile station and base stations by efficient location tracking.

As to claim 52, Tetsuyoshi teaches a base station controller characterized in that when a mobile station is at a location where it can communicate using diversity an over, the base station controller transmits a message to a plurality of base stations, wherein the mobile station communicates with the plurality of base stations, the message including a request for establishing a plurality of branches between the mobile station and the corresponding base stations (paragraph 0010-0013).

Tetsuyoshi fails to teach the network and mobile is established upon a call attempt to or from the mobile station. Foster teaches the network and mobile is established upon a call attempt to or from the mobile station (col.9, lines 32-col.10, line 3). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Foster into the system of Tetsuyoshi

Art Unit: 2683

in order to improve a diversity handoff between mobile station and base stations by efficient location tracking.

As to claim 53, Tetsuyoshi teaches a base station (BS1-BS6) characterized in that, when a mobile station is at a location where it can communicate using diversity handover, the base station establishes a plurality of branches between the base station and the mobile station according to an instruction from a base station controller wherein the mobile station and the base station communicate with each other using the plurality of branches, the plurality of branches including a main branch and at least one auxiliary branch for additional use in order that the mobile station may communicate by means of infra-cell diversity handover, thereby enabling the mobile station to commence communication using the plurality of branches (paragraph 0010-0013).

Tetsuyoshi fails to teach the network and mobile is established upon a call attempt to or from the mobile station. Foster teaches the network and mobile is established upon a call attempt to or from the mobile station (col.9, lines 32-col.10, line 3). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Foster into the system of Tetsuyoshi in order to improve a diversity handoff between mobile station and base stations by efficient location tracking.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Art Unit: 2683

A. Muszynski (US 6,009,328) teaches inter exchange soft handover in a cellular communications system.

B Hamabe (US 6,070,084) teaches cellular system.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANH C LE whose telephone number is 571-272-7868. The examiner can normally be reached on 8:00AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, WILLIAM TROST can be reached on 571-272-7872. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



May 18, 2005

DANH CONG LE
PATENT EXAMINER